

Service Manual

ORDER NO.
TRT1148

AMPLIFIED SUBWOOFER

TS-WX11A

XCN/EW

1. SPECIFICATIONS

- Speaker specifications

Size 208 mm × 128 mm (8-1/4" × 5")
High compliance, rolled edge
Heat-resistant voice coil
Strontium magnet: 590 g (1 lb 5 oz)

- Amplifier

Max. Power output 150 W (80 Hz, 35 % THD)
DIN output power (DIN45324, 80 Hz, 2.0 Ω+B=14.4 V) 70 W
INPUT LEVEL (at Gain Max)
(RCA) 100 mV+100 mV/20 kΩ
(Speaker line) 2 V+2 V/5 kΩ

Power source DC 14.4V (10.8 V to 15.6 V allowable)

Max. current consumption 7 A

Grounding Negative ground

- Speaker system Sealed design

- Cabinet material High-density compound resin

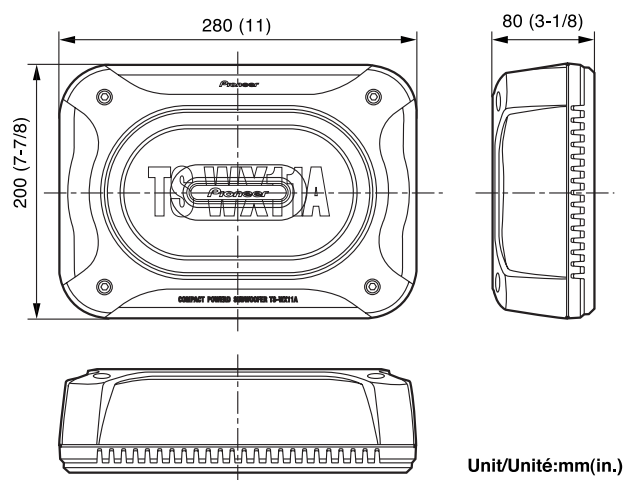
- Sensitivity 101 dB/W (In car, SUV type)

- Size 280 mm (11") (W) × 200 mm (7-7/8") (D) × 80 mm (3-1/8") (H)

- Weight (including accessory parts) 3.42 kg (7 lb 9 oz)

- Gross weight (including packaging) 3.77 kg (26 lb 6 oz)

- Figure of Measurement



Note :

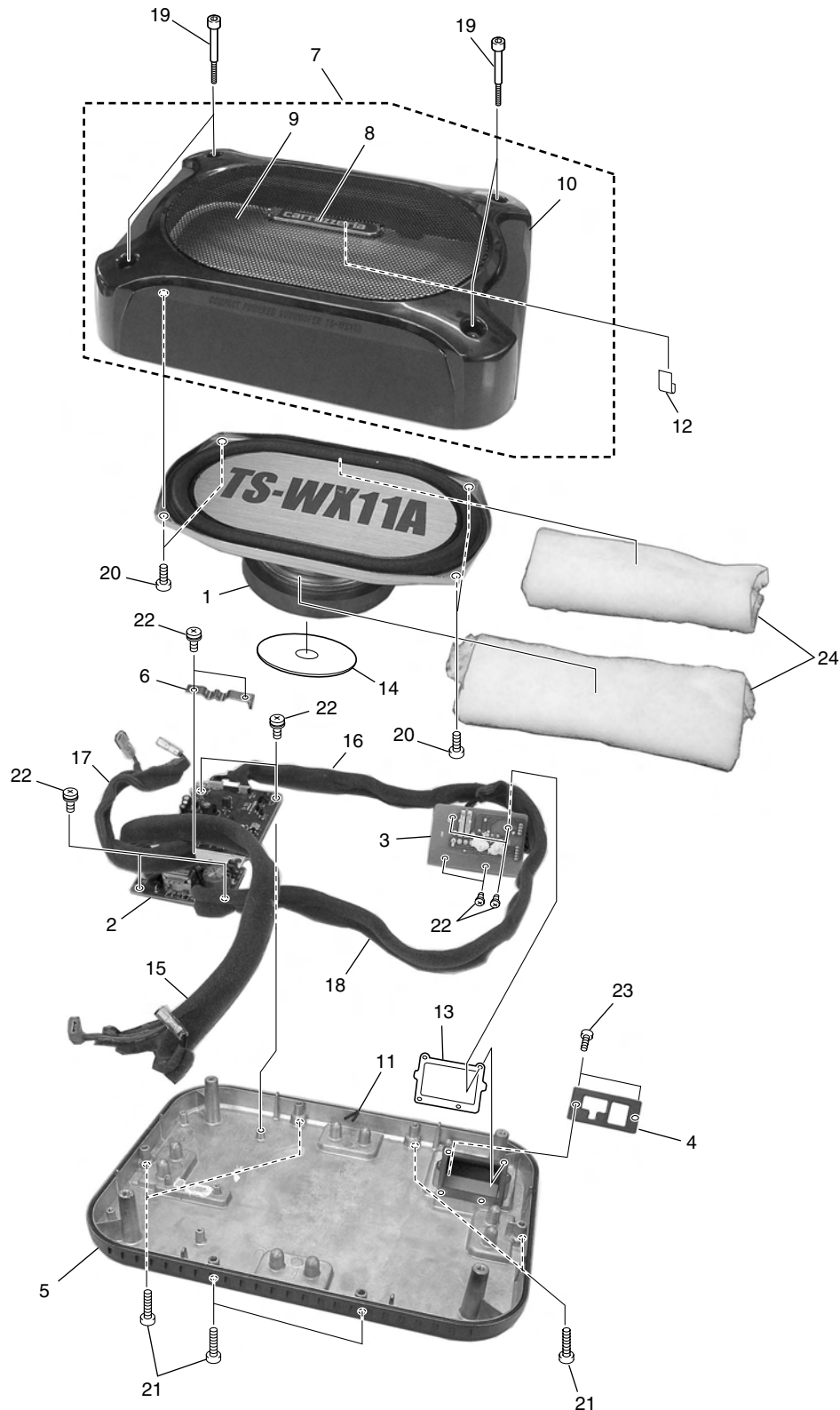
Specifications and the design are subject to possible modification without notice due to improvements.

2. EXPLODED VIEWS AND PARTS LIST

NOTES : ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screws adjacent to ▼ mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 EXTERIOR SECTION

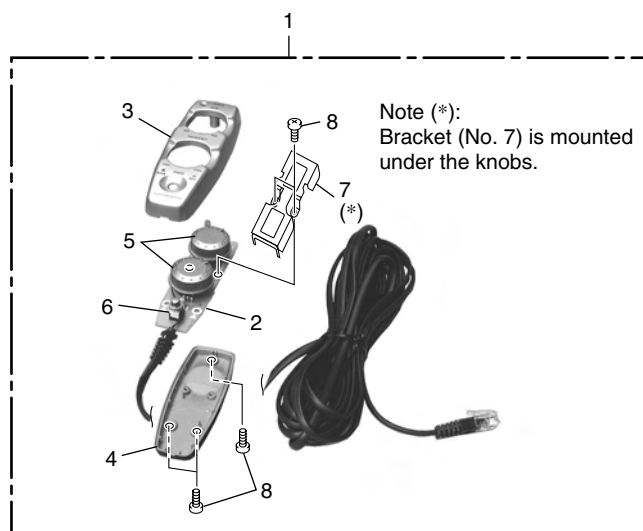


● Component Parts

Mark	No.	Description	Part No.	Remarks
	1	Speaker	231-278AZ/XCN	×1
		PC Board Unit	TWX1049-AZ/XCN	×1
NSP	2	AMP UNIT	TWK1022	×1
NSP	3	SWITCH UNIT	TWS1040	×1
	4	Panel	TAN1192	×1
	5	Cabinet	TLM1803	×1
	6	IC Spring Plate	TNA2032	×1
	7	Baffle Assy	TXL1316	×1
NSP	8	Badge	TAM1263	×1
NSP	9	Mesh	TLL1613	×1
NSP	10	Baffle	TLM1802	×1
	11	Packing	TEB1565	×1
	12	Packing	TED1849	×1
	13	Packing	TED2173	×1
	14	Cushion	TED1847	×1
	15	Cushion	TED2268	×1

Mark	No.	Description	Part No.	Remarks
	16	Cushion	TED2269	×1
	17	Cushion	TED2270	×1
	18	Cushion	TED2273	×1
	19	Screw	TBA1277	×4
	20	Screw	BPZ40P100FTC	×4
	21	Screw	BPZ40P200FTB	×6
	22	Screw	PMH30P080FNI	×10
	23	Screw	BMZ30P060FTB	×2
	24	Sound Absorbent	TED1514	×2

2.2 REMOTE CONTROL UNIT



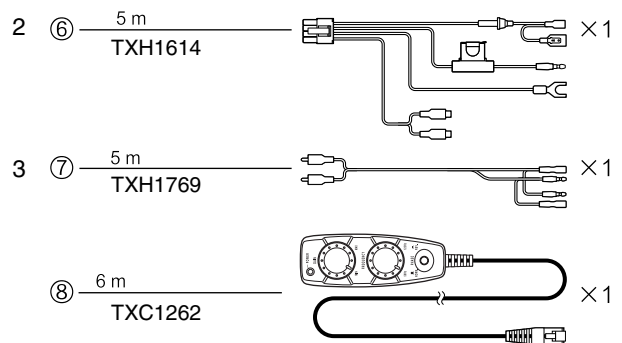
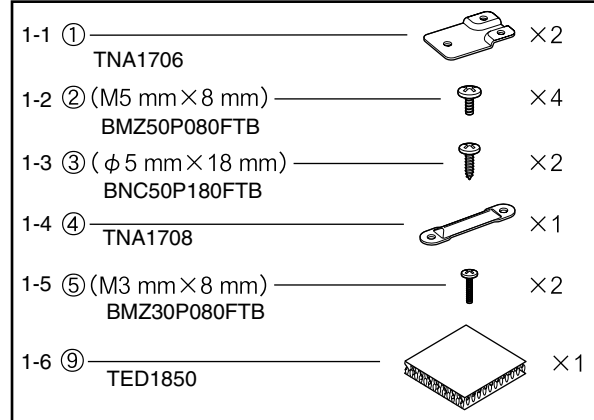
● Component Parts

Mark	No.	Description	Part No.	Remarks
	1	Remote Control Unit	TXC1262-AZ	×1
NSP	2	SWITCH UNIT	TWS1034	×1
	3	Upper Case	TLM1706	×1
	4	Lower Case	TLM1635	×1
	5	Knob	TAA1017	×2
	6	Button	TAA1018	×1
	7	Bracket	TNA1764	×1
	8	Screw	BPZ26P080FTB	×5

2.3 ACCESSORY PARTS LIST

Mark	No.	Description	Part No.	Remarks
A	1	Installation Kit	TEA2231	×1
	1-1	Metal Fitting	TNA1706	×2
	1-2	Screw	BMZ50P080FTB	×4
	1-3	Screw	BNC50P180FTB	×2
	1-4	Metal Fitting	TNA1708	×1
	1-5	Screw	BMZ30P080FTB	×2
	1-6	Cushion	TED1850	×1
B	2	Cord Assy	TXH1614	×1
	3	Connecting Cord Assy	TXH1769	×1
		Operating Instructions	TRD1287	×1

● Parts Included



2.4 PACKING PARTS LIST

Mark	No.	Description	Part No.	Remarks
		Protector	TEC2151	1 pair
		Packing Case	THF4568	×1

3. PCB PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω $\rightarrow$ 56 $\times 10^1$ $\rightarrow$ 561 RD1/4PU $\overline{5}$ $\overline{6}$ $\overline{1}$ J

47k Ω $\rightarrow$ 47 $\times 10^3$ $\rightarrow$ 473 RD1/4PU $\overline{4}$ $\overline{7}$ $\overline{3}$ J

0.5 Ω $\rightarrow$ R50 RN2H $\overline{R}$ $\overline{5}$ $\overline{0}$ K

1 Ω $\rightarrow$ 1R0 RS1P $\overline{1}$ $\overline{R}$ $\overline{0}$ K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω $\rightarrow$ 562 $\times 10^1$ $\rightarrow$ 5621 RN1/4PC $\overline{5}$ $\overline{6}$ $\overline{2}$ $\overline{1}$ F

Mark No. Description Part No.

LIST OF ASSEMBLIES

NSP	1..PC BOARD UNIT	TWX1049-AZ/XCN
NSP	2..AMP UNIT	TWK1022
NSP	2..SWITCH UNIT	TWS1040
NSP	1..REMOTE CONTROL UNIT	TXC1262-AZ
NSP	2..SWITCH UNIT	TWS1034

A AMP UNIT (TWK1022)

SEMOCONDUCTORS

IC101,IC103,IC106	NJM2068M
IC102,IC104	NJM13700M
IC105	E-TDA7575PD
Q101	2SK373
Q102,Q108,Q110,Q111,Q114	KTC3199GR
Q103-Q105	2SA1049
Q106	DTC114ESA
Q107,Q109	DTA114ESA
Q112	KTC2020L
Q113	KTA1281Y
D101-D103,D105,D107,D108	LL914ST
D111	LL914ST
D110	IN5404
D104	ZMM6V8HSCST
D106	ZMM9V1HSCST
D109	ZMM5V6HSCST

COILS

L101 CHOKE COIL	TTH1075
L102 CHOKE COIL	TTH1079

CAPACITORS

C101,C102,C123-C126,C129	CCSQSL101J50
C133,C137,C143-C146	CCSQSL101J50
C103	CCSQSL330J50
C121,C122	CEANP101M16
C104,C110,C139-C142	CEANP2R2M50
C105,C106	CEAT100M50
C120,C128,C130,C135	CEAT101M16
C117,C118,C127,C134	CEAT221M16
C132	CEAT470M16
C131	CEAT471M16
C116	CKCYB102K50
C108	CFTNA183J50
C112-C115,C119	CFTNA224J50
C109	CFTNA333J50
C107	CFTNA474J50

Mark No. Description Part No.

C147-C149,C153-C156	CKSRYB102K50
C111	CKSRYB223K50
C136	CCSQSL821J50
C138 (3300/16V)	TCH1488

RESISTORS

VR102 (2.2k Ω -B)	TCS1029
R150,R151	RS2PMF2R2J
Other Resistors	RS1/10S###J

OTHERS

CN101 CORD	TDC2871
CN102 CORD	TDC2872
CN103 CORD	TDC2873
CN104 CORD	TDC2883
TH101 POSISTOR	TCX1005
FG101 TERMINAL	MKX1007
CUSHION	TED1897

B SWITCH UNIT (TWS1040)

CAPACITORS

C157	CKSRYB102K50
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OTHERS

CN204 CONNECTOR	TKS1107
CN205 CONNECTOR	TKS1091

C SWITCH UNIT (TWS1034)

SEMICONDUCTORS

D301	1SS133
D303	SLH-34VC3F

SWITCH

SW301	TSG1019
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RESISTORS

VR301,VR302 (10k Ω -B)	TCS1030
R301,R302	RD1/4PU471J
R303	RD1/4PU153J

OTHERS

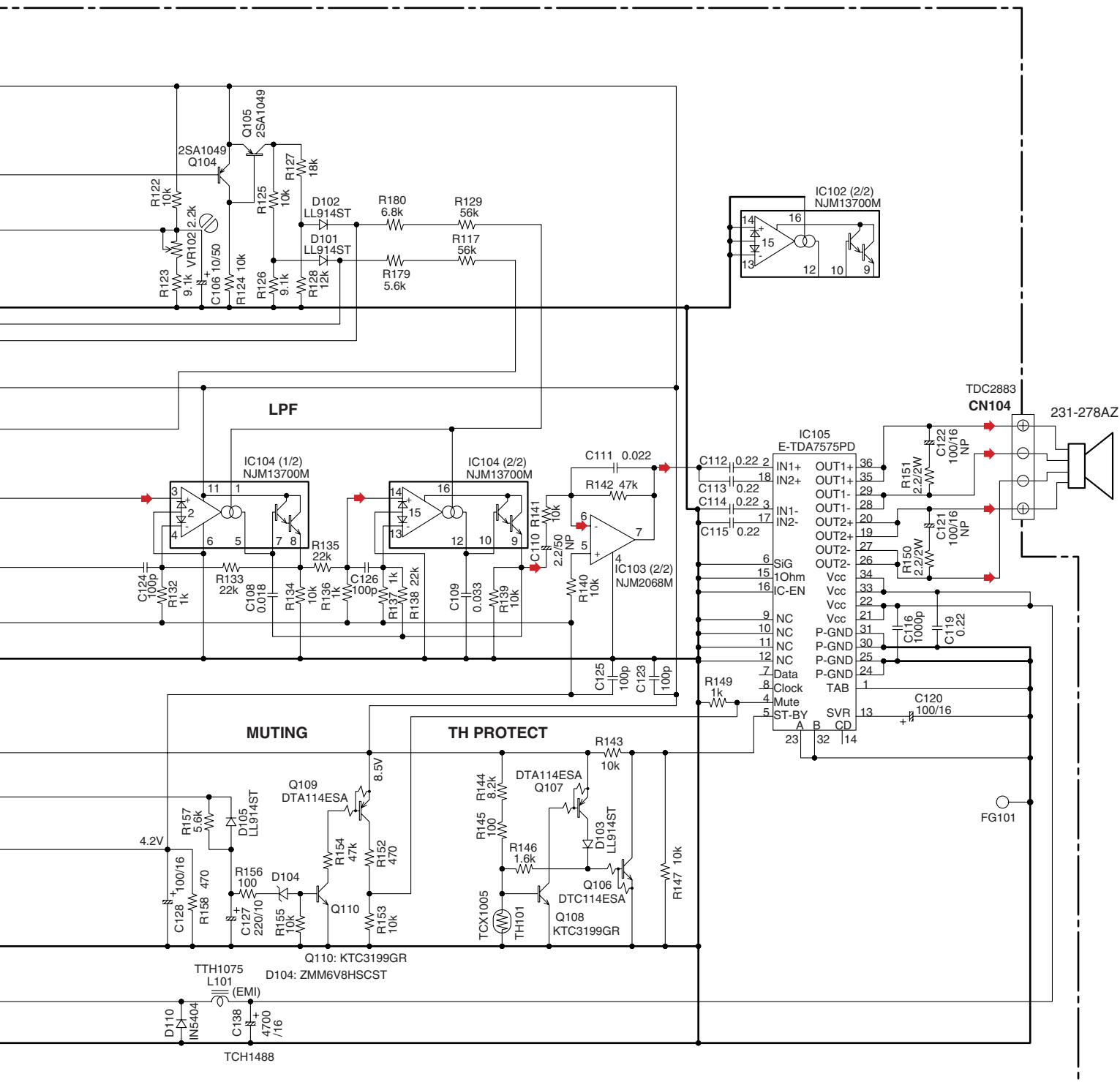
CN301 CORD	TDC2605
NSP LED HOLDER	TNK1732

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TS-WX11A



Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



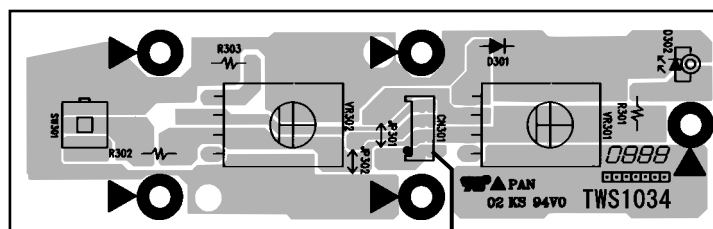
➡ : AUDIO SIGNAL ROUTE

5. PCB CONNECTION DIAGRAM

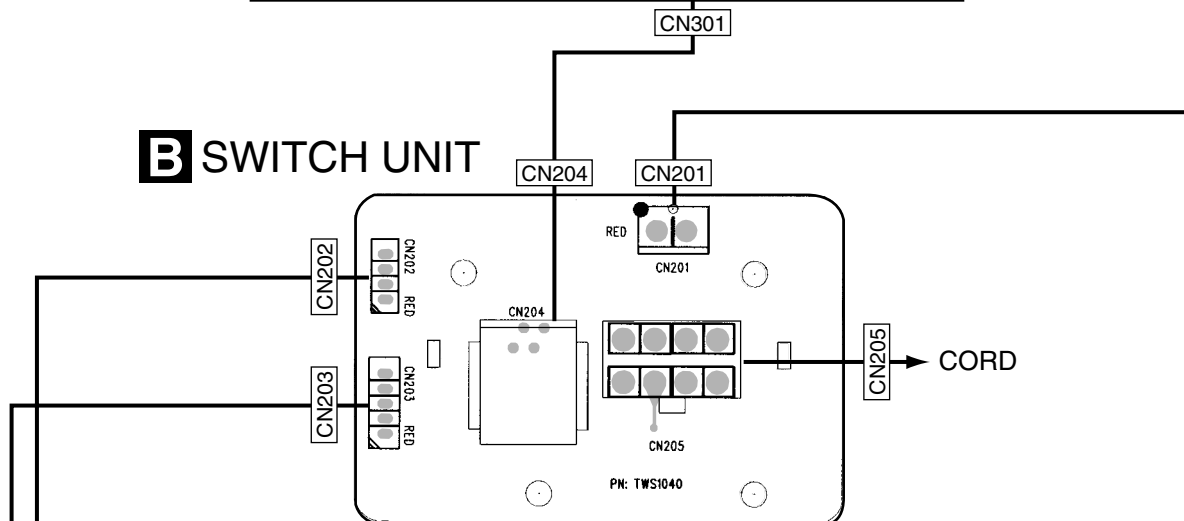
SIDE A

SIDE A

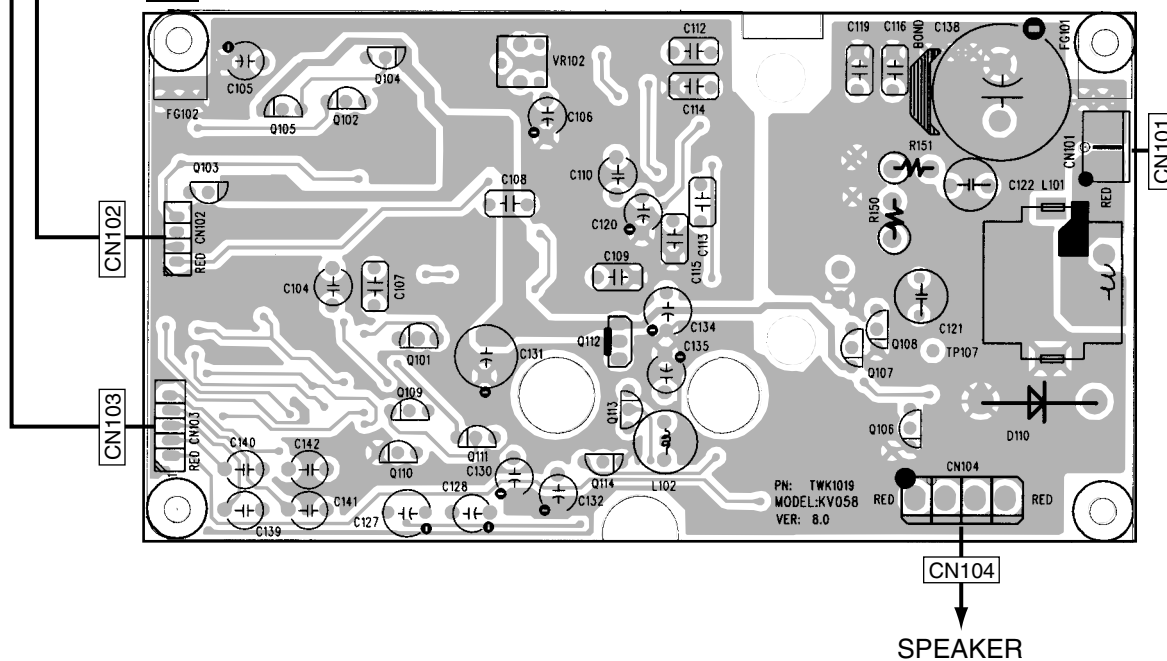
C SWITCH UNIT



B SWITCH UNIT



A AMP UNIT



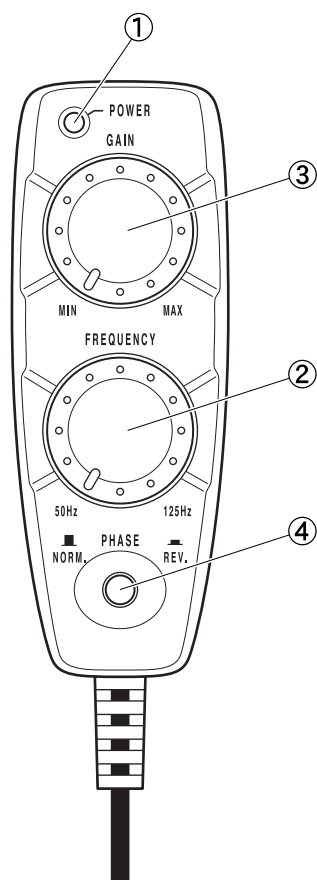
VR102

Q103	Q105	Q102	Q104				Q108
			Q101		Q112		Q107
			Q109		Q113		Q106
			Q110	Q111	Q114		

A B C

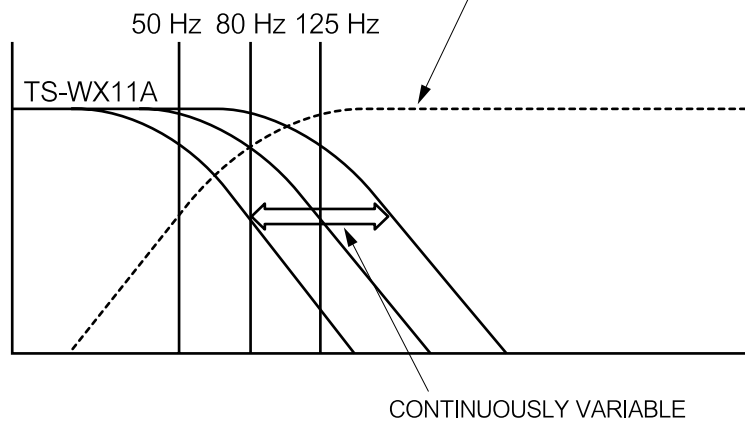
A B C

6. CONTROLS AND THEIR USE



CROSSOVER FREQUENCY

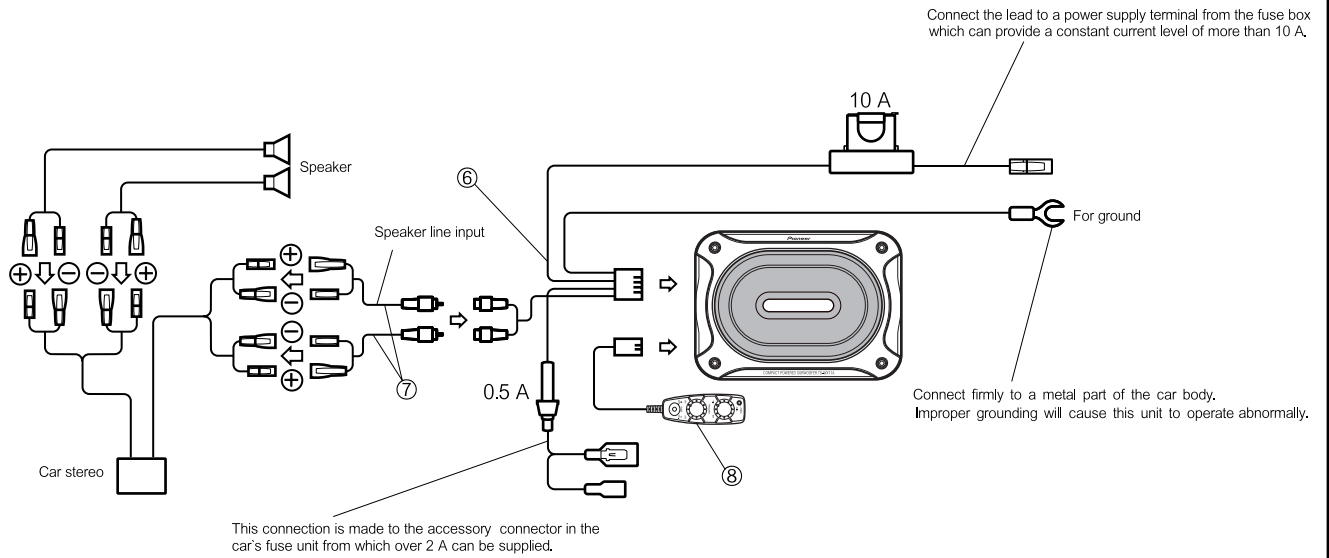
FULL-RANGE SPEAKER



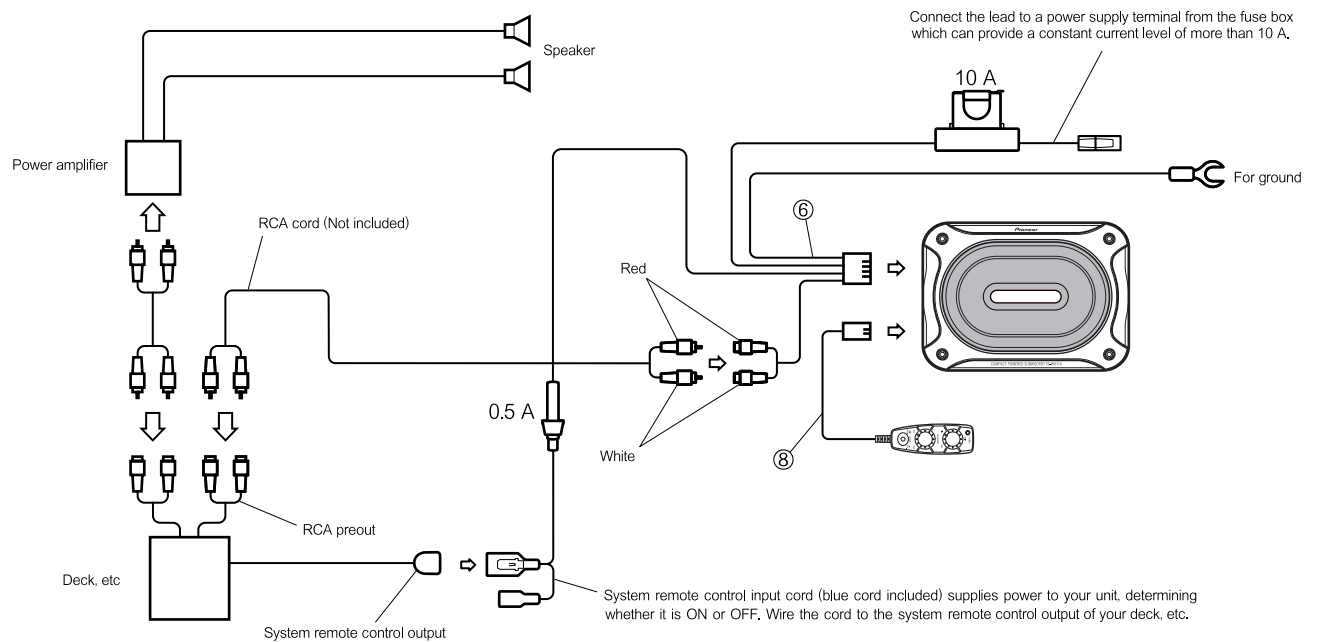
- ① Power indicator
Lights up when power is turned on.
- ② Frequency control
Turn this knob to change the frequency during sound reproduction.
Set the knob to the bass setting of your choice (continuously variable from 50 Hz to 125 Hz).
- ③ Gain control
Use this control to set the desired gain level.
- ④ Phase switch
Use switch to select the phase according to the system.

7. CONNECTIONS

Wiring Example 1 (Speaker line Input system)

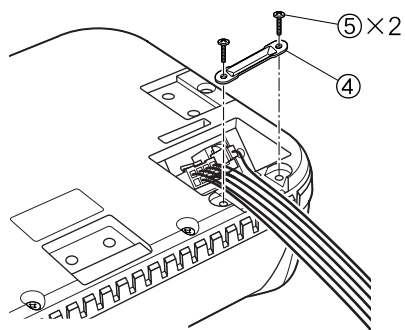


Wiring Example 2 (RCA Input system)

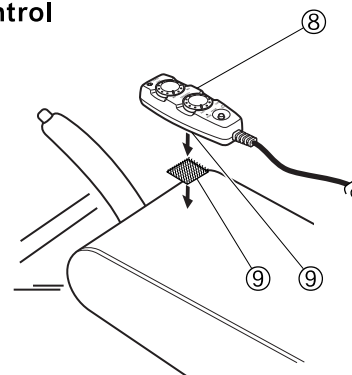
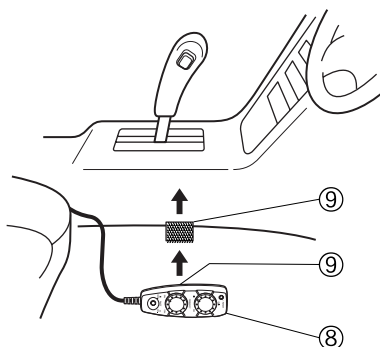


8. HOW TO INSTALL

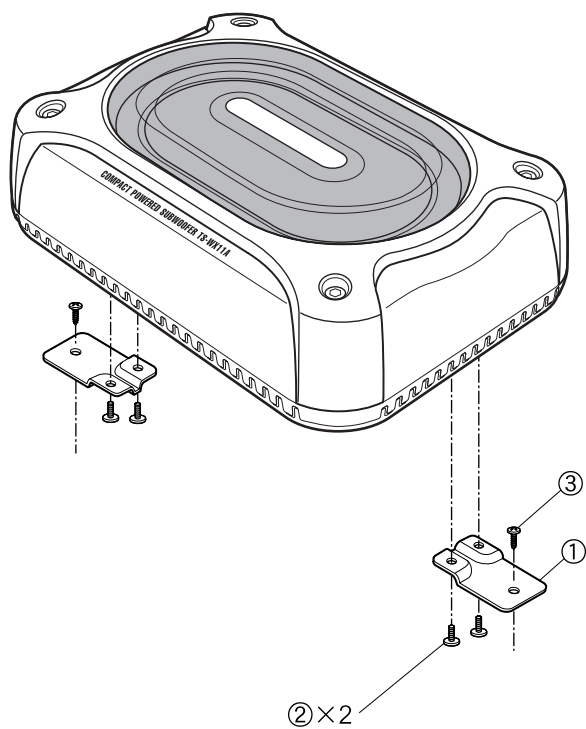
•Attaching cord clampers



•How to install the remote control



•Mounting direction 1



•Mounting direction 2

